

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

1. **Amendments to the Claims:**

1. Cancelled.
2. Cancelled.
3. Cancelled.
4. Cancelled.
5. Cancelled.
6. Cancelled.
7. (Currently Amended) A system for user behavior based searching of a document

based on a query having one or more query terms, comprising:

means for determining a feature vector associated with a document, the feature vector comprising weights for certain terms that appear in the document;

means for modifying the feature vector for the document based on a sample of user actions captured during a query of the document so that the document is more highly ranked in response to the user actions;

means for storing the modified document feature vector wherein the document feature vector for a document is modified and stored following each search session and sampled user action so that the modified document feature vector is utilized during and affects the results of every subsequent search session by every user; and

means for returning the same document to another user with the same query at a higher ranking due to the modified feature vector.

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

8. (Previously presented) The system of Claim 7 further comprising means for capturing user actions in response to a list of documents produced in response to a query wherein the user actions include selecting a document from the list of documents.

9.(Original) The system of Claim 8, wherein the modifying means further comprises means for adjusting the frequency values of the terms in the feature vector that match terms in a query that produced the list of documents so that the ranking of the document is higher in response to the adjustment of the frequency values.

10. (Currently Amended) A method for user behavior based searching of a document based on a query having one or more query terms, comprising:

determining a feature vector associated with a document, the feature vector comprising frequency values for one or more terms that appear in the document;

modifying the feature vector for the document based on a sample of user actions captured during a query of the document so that the document is more highly ranked in response to the user actions;

storing the modified document feature vector wherein the document feature vector for a document is modified and stored following each search session and sampled user action so that the modified document feature vector is utilized during and affects the results of every subsequent search session by every user; and

returning the same document to another user with the same query at a higher ranking due to the modified feature vector.

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

11. (Currently Amended) The method of Claim 10 further comprising ~~means for~~ capturing user actions in response to a list of documents produced in response to a query wherein the user actions include selecting a document from the list of documents.

12. (Currently Amended) The method of Claim 11, wherein the modifying ~~means~~ further comprises ~~means for~~ adjusting the frequency values of the terms in the feature vector that match terms in a query that produced the list of documents so that the ranking of the document is higher in response to the adjustment of the frequency values.

13. (Currently Amended) A computer implemented method for user behavior based ranking of a document, the method comprising:

ranking a document based on a feature vector of the document, the feature vector comprising frequency values for one or more terms that appear in the document;

sampling user search behavior; and

updating the feature vector of the document based on the sampled user search behavior so that the rank of the document is changed based on the user sampled user search behavior;

storing the modified document feature vector wherein the document feature vector for a document is modified and stored following each search session and sampled user action so that the modified document feature vector is utilized during and affects the results of every subsequent search session by every user; and

returning the same document to another user with the same query at a higher ranking due to the modified feature vector.

14. (Previously presented) The method of Claim 13, wherein the sampling further comprises generating a sample of the user behavior wherein the sample of the user behavior

Gray Cary\EMV7169277.1
1220335-991180

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

further comprises a query feature vector of the terms in a particular query and the feature vector of the one or more documents returned based on the query and viewed by the user.

15. (Previously presented) The method of Claim 14, wherein the sample generating further comprises generating a sample during a sampling frequency.

16. (Previously presented) The method of Claim 13, wherein the updating further comprises combining the feature vector of the document with a feature vector of the query, the feature vector comprising frequency values for one or more terms that appear in the query.

17. (Previously presented) The method of Claim 16, wherein the updating further comprising scaling the query feature vector based on the viewing time of the document by the user during the sampled user behavior to generate a scaled query feature vector.

18. (Previously presented) The method of Claim 17, wherein the scaling further comprises generating a negative scaling factor in response to a short viewing time so that the scaled query feature vector is negative and the feature vector of the document is reduced and the rank of the document is reduced.

19. (Previously presented) The method of Claim 17, wherein the scaling further comprises generating a positive scaling factor in response to a long viewing time so that the scaled query feature vector is positive and the feature vector of the document is increased and the rank of the document is increased.

20. (Currently Amended) A computer implemented system for user behavior based ranking of a document, the system comprising one or more computer instructions, the system comprising:

Gray Cary\EM\7169277.1
1220335-991180

Page 5 of 11

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

instructions for ranking a document based on a feature vector of the document, the feature vector comprising frequency values for one or more terms that appear in the document;

instructions for sampling user search behavior; and

instructions for updating the feature vector of the document based on the sampled user search behavior so that the rank of the document is changed based on the user sampled user search behavior;

instructions for storing the modified document feature vector wherein the document feature vector for a document is modified and stored following each search session and sampled user action so that the modified document feature vector is utilized during and affects the results of every subsequent search session by every user; and

instructions for returning the same document to another user with the same query at a higher ranking due to the modified feature vector.

21. (Previously presented) The system of Claim 20, wherein the sampling further comprises instructions for generating a sample of the user behavior wherein the sample of the user behavior further comprises a query feature vector of the terms in a particular query and the feature vector of the one or more documents returned based on the query and viewed by the user.

22. (Previously presented) The system of Claim 21, wherein the sample generating further comprises instructions for generating a sample during a sampling frequency.

23. (Previously presented) The system of Claim 20, wherein the updating further comprises instructions for combining the feature vector of the document with a feature vector of the query, the feature vector comprising frequency values for one or more terms that appear in the query.

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

24. (Previously presented) The system of Claim 23, wherein the updating further comprising instructions for scaling the query feature vector based on the viewing time of the document by the user during the sampled user behavior to generate a scaled query feature vector.

25. (Previously presented) The system of Claim 24, wherein the scaling further comprises instructions for generating a negative scaling factor in response to a short viewing time so that the scaled query feature vector is negative and the feature vector of the document is reduced and the rank of the document is reduced.

26. (Previously presented) The system of Claim 24, wherein the scaling further comprises instructions for generating a positive scaling factor in response to a long viewing time so that the scaled query feature vector is positive and the feature vector of the document is increased and the rank of the document is increased.

27. Cancelled.

28. Cancelled.

29(Previously presented). The system of claim 7, wherein the modifying means further comprises means for sampling the actions of a plurality of users in order to modify the feature vector for the document.

30. (Previously presented). The method of claim 10, wherein the modifying the feature vector further comprises sampling the actions of a plurality of users in order to modify the feature vector for the document.

31 (Previously presented). The method of claim 13, wherein sampling user search behavior further comprises sampling the user search behavior of a plurality of users.

Appl. No. 09/775,715
Reply dated July 9, 2004
Reply to Office Action mailed April 9, 2004

32 (Previously presented). The system of claim 20, wherein the instructions for sampling user search behavior further comprises instructions for sampling the user search behavior of a plurality of users.

Gray Cary\EMV7169277.1
1220335-991180

Page 8 of 11